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U. S. Fish Commission. Report of the Commission for 1879. A.—Inquiry into the decrease of food fishes. B.—The propagation of food fishes in the waters of the United States. Washington, 1882. From the department.

The Horse: How to buy and sell. By Peter Howden. New York, Orange Judd & Co., 1882. From the publishers.

Bulletin of the U. S. Geol. and Geog. Survey. Preliminary list of works and papers relating to the Mammalian orders Cete and Sirenia. By Joel Asaph Allen. New Moths. By A. R. Grote, A.M. From the department.

Contribution from the Laboratory of the University of Pennsylvania. No. xx. Contribution to Mineralogy. By F. A. Genth. From the author.

The Origin and Relations of the Carbon Minerals. By Professor J. S. Newberry. From the Annals N. Y. Acad. Sci., 1882. From the author.

Hypothetical High Tides, as Agents of Geological Change. By J. S. Newberry. Ext. Trans. N. Y. Acad. Sci., 1882. From the author.

The Scientific Roll and Magazine of Systematized Notes. Conducted by Alexander Ramsay, F.G.S. Climate Vol. 1. Part II.—Aqueous vapor. London, Eng., J. H. Fennell, 1882.

Report of the Trustees of the Australian Museum. New South Wales, 1882.

The Opium Habit, its successful treatment by the *Avena Sativa*. By E. H. M. Sell, M.D. Rep. from the Medical Gazette, April 22, 1882. New York, Birmingham & Co. From the author.

The Channel Tunnel. By Professor Boyd Dawkins, M.A., F.R.S. Ext. Trans. Manchester Geological Society, Vol. xvi, 1882. J. Roberts, Salford, Eng.

Quarterly Report of the Kansas State Board of Agriculture, June 30, 1882. Wm. Sims, secretary, Topeka, Kansas. From the author.

Bryozoans of the Upper Helderberg and Hamilton groups. By James Hall. Albany, Weed, Parsons & Co., 1871. From the author.

Fossil Corals of the Niagara and Upper Helderberg groups. By James Hall. Albany, Weed, Parsons & Co., 1882. From the author.

Nogle Bemærkninger om Vaagmærren (*Trachypterus arcticus*) og Sildetusten (*Gymnetrus banksii*). Af Dr. Chr. Lütken. From the author.

Kovte Bidrag til Nordisk Ichthyographi N. *Trachypterus arcticus* og *Gymnetrus banksii*. Af Dr. Chr. Lütken. From the author.

•Ditto V. Om nogle nordiske Havkvabbe-ellor *Motella* (Onos) Arter.

Nature Series. The Scientific Evidences of Organic Evolution. By G. J. Romanes, M.A., F. R.S. London, Macmillan & Co. From the author.

Une Baleine Fossile de Croatie appartenant au genre *Mésocète*. Par P. J. Van Beneden. Bruzelles, F. Hayez, 1882. From the author.

Indiana Department of Geology and Natural History. Eleventh Annual Report. John Collett, State Geologist. From the author.

Zeitschrift für die Gesamten Naturwissenschaften. Redigirt von Dr. C. G. Giebel. Berlin, 1881. From the editor.

Eleventh Report of the State Entomologist on the Noxious and Beneficial Insects of the State of Illinois. By Cyrus Thomas, Ph.D. Springfield, H. W. Rokkev, 1882. From the author.

Notes on the Eastern Cities and Museums of the United States. By Agnes Crane. The Leisure Hour, London, July, August, September, 1882. From the author.

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GENERAL NOTES.

BOTANY.¹

A BOTANICAL EXCURSION TO MT. MANSFIELD AND SMUGGLER'S NOTCH.—Northern Vermont is well known as one of the most interesting botanical localities in New England, from the abundance

¹Edited by PROF. C. E. BESSEY, Ames, Iowa.

of scarce and local plants found there. It was the desire to collect and study in their native haunts some of the rarest of these northern plants, that induced our party of four to visit Mt. Mansfield in July. Mt. Mansfield is the highest of the Green mountains, rising some forty-three hundred feet above sea level.

The crest of the mountain, as seen from below, bears some resemblance to the profile of a human face, and hence the south elevation of the crest has received the name of the Nose, while the northern, distant about two miles and some three hundred feet higher than the Nose, is called the Chin. The view is too well known and has been too often described to call for notice here.

We approached the mountain from the Underhill side. After a hot climb up the path we reached the top and were taken care of at the Summit House. The plants along the path up the mountain did not differ noticeably from those usually observed in the White mountains. Little was done the first day except to investigate the crest of the mountain and enjoy the magnificent view of Lake Champlain and the Adirondack mountains, but the next morning with the arrival of Mr. F. H. Hosford, of Charlotte, an enthusiastic botanist and explorer, well known to collectors by his carefully-prepared specimens, the botanical work began in earnest.

With the exception of the vicinity of the Summit House, the crest of the mountain is destitute of trees. On the Nose in a nook in the face of the cliff, we found a few specimens of the rare *Aspidium fragrans*, readily recognized by its odor of new-mown hay, which lingers long after the fronds are pressed and dried. Here also was a single shrub of *Salix balsamea*.

In the damp moss under the dwarf evergreens, near the house, we gathered *Habenaria obtusata* and the tiny *Listera cordata*, ranked by Dr. Gray in his interesting paper on the statistics of the northern flora, among the twenty-one scarcest species of the region; also *Smilacina trifolia*, frequently mistaken by the careless observer for *Smilacina bifolia* and *Goodyera repens* in bud. Along the ridge joining the Nose and Chin, numerous specimens were collected. *Ledum latifolium*, *Coptis trifolia*, *Arenaria grænlandica* were in full flower, while *Diapensia Lapponica* forming dense mossy cushions, was ripening its fruit. *Comandra livida*, with its minute axillary flowers was at first carelessly neglected from its resemblance to *C. umbellata*.

On the sides of the mountain near the top, we noticed *Habenaria dilatata*, conspicuous with its snowy white flowers; *Kalmia glauca*, one of the prettiest of our semi-alpine plants, and *Trillium erythrocarpum*, which looked strangely out of place blooming in July. From the Chin, after carefully taking our bearings, we struck, or rather endeavored to strike, a bee-line through the brush and bogs for the Lake of the Woods, which seems, as you

look down on it from above, to be but a short distance from the summit; but of all things apparent distance is the most deceptive.

The thick undergrowth prevented us from seeing where we ought to go, and so we went astray while the damp mossy bogs and ravenous mosquitoes rendered life a burden. At length the lake was reached. On its shores grew *Streptopus amplexifolius*; *Claytonia caroliniana* just budded, *Andromeda polifolia* now in fruit, *Sambucus pubens*, *Vaccinium uliginosum*, *V. oxycoccus*, *Aamelanchier canadensis* var. *oligocarpa*, while *Viola blanda* abounded everywhere. We found our way back to the summit without difficulty, and returned to the house well satisfied with our day's work. The night was enlivened by the unearthly cries of the hedge-hogs which abound on the mountain; in this case they devoted their energies to gnawing an empty butter tub to secure the salt.

The next morning we left the summit covered with clouds, and descended by the carriage road to botanize in Smuggler's Notch. This pass, which received its name from the fact that it was used during the war of 1812 by smugglers in conveying contraband goods from Canada to the United States, lies between Mt. Mansfield and Mt. Shepley, hemmed in by cliffs sometimes towering to the height of 1000 feet. While Mt. Mansfield was frequently visited by botanists, the flora of the Notch remained comparatively uninvestigated. Frederick Pursh, an Englishman who traveled quite extensively in this country while collecting material for his *Flora Americæ Septentrionalis*, visited Mt. Mansfield in 1807, and here first saw *Aspidium aculeatum*, not before known to exist in America; but it is doubtful whether he entered the Notch. Dr. Robbins visited Mt. Mansfield in 1829, but probably not the Notch.

In 1839 Professor Tuckerman collected *Aspidium aculeatum* on the sides of Mt. Mansfield, but it is uncertain whether he visited the Notch. C. C. Frost many years ago collected this fern in the Notch, but seems not to have traveled far from the trail. Professor Eaton visited the Notch in 1855, "but got," as he says "only *Aspidium aculeatum*, a few mosses, and seventy trout."

But the rarities of the Notch were practically unknown till Mr. C. G. Pringle, a thorough investigator of our alpine flora, began the exploration of its steepes, Aug. 10, 1876, when fresh from a trip to Willoughby mountain. The next year Hoysradt and the Faxon brothers accompanied him thither, and in 1878 the Notch was visited by Professors Gray and Sargent, and others.

The flora of the Notch is quite similar to that of Willoughby mountain. A road leads to a tavern, now in ruins though formerly in some repute, at the entrance of the Notch proper. Across the road from the tavern is a large spring of clear, cold water, by the side of which we lunched. Along the side of the

road and path grew *Geum macrophyllum*, *Calamintha clinopodium*, scarce, *Viola canadensis*, *Aspidium spinulosum* var. *dilatatum*, *A. aculeatum* var. *braunii*, while in the moss in the crevices of the rocks, we noticed the leaves of the rare *Viola selkirkii*, marked by their deep narrow sinus. About half way through the Notch we deposited our luggage on a high boulder, as the hedge-hogs are partial to leather bags, and left the path to explore one of the precipitous ravines or dry brook beds extending up the cliff. Climbing a steep mountain ravine is sometimes no easy matter; however by dexterity and diligent use of all shrubs in the neighborhood, we made our way up as best we could. The first plant of special interest discovered, was *Castelleia pallida*. Though the flowers (properly bracts) are sometimes colored, yet in all those we noticed, they were either greenish or whitish, in striking contrast with our brilliant "painted cup" (*Castelleia coccinea*) that reddens our meadows in spring. Next *Saxifraga oppositifolia* was found hidden under a sheltering rock, but a month past flowering. Here on all sides, among the rocks and in the rifts and crannies of the cliff, were the rarities we had come so far in search of. *Saxifraga aizoides*, with its yellow spotted flowers, and *S. aizoon*, with its cream-colored flowers and singular leaves, bearing along the edge a row of white cartilaginous disks, were in full bloom everywhere. *Saxifraga aizoides* was probably unknown to Linnæus as native to America, for he says of its distribution, "*habitat in Alpibus, Lapponicis Styriacis, Westmorlandicis, Baldo.*" At the date of the publication of Torrey and Gray's Flora in 1840, neither *Saxifraga oppositifolia*, *S. aizoon*, nor *S. aizoides* were reported in the U. S., except at Lake Superior or in the Rocky mountains. In little clusters in the wet moss on the rocks, nodded the purple bells of *Pinguicula vulgaris*, the leaves of which were covered with a mucilaginous substance, and in some cases the margins had rolled over minute insects as so well described by Mr. Darwin in his "Insectivorous Plants." When we turned our attention from the plants at our feet and looked around, the full grandeur of our position burst upon us; far below lay the narrow valley, opposite towered high cliffs, above the rocky walls rose steeply to the summit, while the cracks and crannies high above our heads were filled with the flowers of *Saxifraga aizoon*, *Pinguicula vulgaris*, *Potentilla fruticosa* and *Campanula rotundifolia*.

Among the less noticeable plants were *Hedysarum boreale*, *Astragalus alpinus* *Draba arabisans*, *Artemisia canadensis*, *Aster graminifolius*, first described by Pursh, who founded the species on a specimen from Hudson's bay, in the herbarium of Sir Joseph Banks, *Woodsia glabella* and *Asplenium viride*, which at the date of Gray's Manual was not recorded in the U. S. After collecting what specimens we wished, we crossed, with many a slip and stumble, to a brook, along which we descended. If the ascent

was difficult, the descent was infinitely more so. We seemed about to pitch down headlong, while the wet, slippery rocks afforded such a precarious footing that the brook was preferable. The descent was a mixture of creeping, crawling, jumping and sliding, the only thoroughly enjoyable way being to sit in the bed of the brook and slide down in the water, an operation that slightly dampened the clothes. On reaching the path we took up our baggage, and shortly before sundown emerged at the upper end of the Notch; here we found a wagon waiting to carry us to our hotel at Underhill, where we arrived in due season, thus ending our excursion, feeling that we had enjoyed three days of rare pleasure.

Among the plants we did not collect, but which have been collected by Messrs. Pringle and Hosford, are *Draba incana*, *Primula Mistassinica*, *Gentiana amarella* var. *acuta* and *Polygonum viviparum*.

This brief sketch does not claim to be a study of the Notch flora, but simply records a few of its more noticeable features.

In connection with the flora of Mt. Mansfield and Smugglers' Notch, the following list of Vermont plants, given by Wm. Oakes in 1840, as not then found in any other of the New England States, may be of interest. In case of antiquated names, the modern equivalents are given in parentheses:

Anemone pennsylvanica L.
A. hudsoniana (*A. multifida* Poir.).
Corydalis aurea Willd.
Nasturtium natans (*N. lacustre* Gray).
Sisymbrium teres (*Nasturtium tanacetifolium* Hook & Arn.).
Draba arabisans Michx.
Sinapis arvensis (*Brassica sinapistrum* Bois.). Introduced.
Cerastium nutans Rof.
Flörkea proserpinacoides Willd.
Ceanothus ovalis Bigelow.
Lathyrus ochroleucus Hook.
Phaca robbinsii (*Astragalus robbinsii* Gray).
Zizia integrerrima D. C.
Symphoricarpos racemosus Michx.
Viburnum pubescens Pursh.
Valeriana sylvatica Richards.
Aster ptarmicoides Torr. & Gray.
Solidago humilis (*S. virga-aurea*, var. *humilis* Gray).
Pterospora andromedea Nutt.
Justicia americana (*Dianthera americana* L.).
Shepherdia canadensis Nutt.
Euphorbia platyphylla L.
Quercus macrocarpa Michx.
Populus candicans (*P. balsamifera*, var. *candicans* Gray).
P. monilifera Ait.
Ulmus racemosa Thomas.
Listera convallarioides Hook.
Calypso bulbosa (*C. borealis* Salisb.).
Trillium grandiflora Salisb.
Zannichellia palustris L.
Carex eburnea Booth.
Equisetum variegatum Schleicher.
Aspidium aculeatum Swartz (var. *Braunii* Koch).
Pteris gracilis (*Pellæa gracilis* Hook).

—H. W. Preston.

BOTANICAL NOTES.—In the September *Torrey Bulletin* E. L. Greene describes seven new species of Californian Compositæ, viz: *Pentachæta alsinoides*, *Hemizonia lobbii*, *Hemizonia clevelandii*, *Hemizonia cephalotes*, *Hemizonia oppositifolia*, *Verbesina venosa*, *Microseris attenuata*.—J. B. Ellis continues his descriptions of North American Fungi in the same number, giving the characters of four new species, viz: *Valsa lutescens*, *V. binocolata*, *V. tuberculosa*, *V. venusta*, *V. ampelopsidis*.—Three new grasses are described by Dr. Vasey in the August–September *Botanical Gazette*, *Muhlenbergia setifolia* from Western Texas, *M. glomerata*, var. *brevifolia* from South-eastern California, and *M. sylvatica* var. *californica* from the San Bernardino mountains, Cal.—In the same journal Dr. Gray names a new plant of interesting affinities, *Parishella californica*. It is related to *Nemacladus ramossissimus*, and must consequently fall into Bentham and Hooker's tribe Cyphieæ of the order Campanulaceæ. The genus is dedicated to the Parish brothers, the well-known botanical collectors.—The July *Quarterly Journal of Microscopical Science* contains two important botanical papers, one by F. O. Bower on the Germination and Embryogeny of *Gnetum gnemon*, and the other by Professor Huxley on Saprolegnia in its relation to the Salmon Disease. In the latter the eminent author, after careful investigation, concludes that “the growth of the fungus is the cause of the morbid affection of the epidermis, and not its consequence.”—Thomas Christy's *New Commercial Plants and Drugs*, No. 6, a pamphlet of about one hundred pages, and published by Christy & Co., London, contains much valuable information on the vegetable fibers produced in tropical countries. Six lithographic plates of fibers prepared by Vétillart, of Paris, accompany the pamphlet, and add much to its value. Cross and longitudinal sections magnified 300 diameters are shown of the fibers of flax, hemp, jute, cotton, china-grass, New Zealand flax, Mudar bark (*Calotropis gigantea*), paper mulberry, Nepal paper-plant (*Daphne papyracea*) Esparto grass, Pita (*Agave americana*), Manilla hemp, Tecum palm, bow-string hemp (*Sansevieria zeylanica*), pine apple and “white fir.”—The most important papers in the *Journal of the Linnean Society*, No. 121, are the Action of carbonate of ammonia on Chlorophyll-bodies, by Charles Darwin, and Researches on the life-history of *Hemileia vastatrix*, the fungus of the “coffee-leaf disease,” by H. Marshall Ward. The latter holds that “it may be fairly considered proved that ‘leaf disease’ here, as in so many other cases now known, is not antecedent to the fungus, but is consequent upon the injurious action of the mycelium.” “No ground exists for considering the fungus as a ‘product of vitiated plant-life,’ or ‘of the sap,’ and just as little reason is there for the view that a sickly plant is prone to infection. Nay, experiments prove conclusively that a vigorous and healthy West Indian tree is as easily infected as one from Ceylon, and it has also been shown

that such a vigorous plant may produce more vigorous mycelium and spore-groups, *i. e.*, may disseminate more of the disease producing fungus in a given period."—A neatly printed pamphlet of seventy-five pages, entitled Houghton Farm Experiments with Indian corn, has been published by Mr. Lawson Valentine, the proprietor of the farm at Montainville, N. Y. Dr. Miles' paper on Field Experiments, which occupies more than two-thirds of the pamphlet, contains much valuable matter botanically as well as agriculturally.

ZOÖLOGY.

THE BITE OF THE GILA MONSTER (*HELODERMA SUSPECTUM*).—Within the last week the Smithsonian Institution has received from Acting Assistant Surgeon A. T. Burr, U.S.A., now serving in Arizona, a very fine living specimen of this lizard. I understand that Dr. Burr has had this reptile in his care for nearly six months, and it arrived here in an excellent state of health.

Heloderma suspectum Cope is the largest of our North American lizards, and is found all through New Mexico, Arizona, Lower California, and the country to the southward. I have never had the pleasure of seeing this reptile in its native haunts, but have been told by those who have been so fortunate, that it is a wonderfully striking object to behold, as well we might imagine it to be, with its shining and flinty armor of jet-black and brilliant orange, irregularly arranged over its body, darting as it does among the rocks of that arid land.

The superstitious Indians, and still more superstitious Mexicans that reside in the country where the *Heloderma* is found, have always regarded it with dread and fear, attributing to its bite the direst venom. Enlightened folk have entertained in their minds doubts upon this subject, indeed I have seen specimens forwarded to the Smithsonian, by collectors from the above localities, completely perforated by a large carbine ball, so careful have they been not to handle this creature alive. In view of these facts then, and this interesting part of its natural history, well authenticated cases of bites of this lizard possess sufficient value for scientific record.

Dr. Burr's specimen is not the first representative of *Heloderma* that we have received from our vast Southwest, for from time to time quite a number of these lizards have been sent to us alive, and they thrive quite well for a long time, feeding on eggs served to them either raw or hard boiled.

In removing them from cage to cage, or handling them for other purposes, the utmost care has usually been exercised, due to their doubtful reputation and not over gentle appearance. Mr. Henry Horan, the superintendent of the National Museum, received on several occasions slight bites from these specimens, but the wounds were never followed by any untoward symptoms.